



## SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product name : ALEFIA PARFUMCARD MIRABEAU  
Product code : ALE-017

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Application : SU21 Consumer product. PC3 Air care products. Airfreshener.

### 1.3. Details of the supplier of the safety data sheet

Supplier : Dovox B.V.  
Computerweg 3  
3542 DP UTRECHT, The Netherlands  
Telephone : +31-30-7116 824  
Fax : +31-30-3100 141  
E-mail : info@dovox.nl  
Website : www.dovox.nl

### 1.4. Emergency telephone number

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:

NL - Telephone : +31-30-7116 824 (During office hours only)

EMERGENCY TELEPHONE NUMBER (for DOCTORS only):

National Poisons Information Service +44 344 892 0111 (24/7)

## SECTION 2 HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

CLP classification : Skin irritation, category 2. Skin sensitization, category 1. Hazardous to the aquatic environment — (1272/2008/EC) Acute category 1. Hazardous to the aquatic environment — Chronic category 2.

Human health hazards : Causes skin irritation. May cause an allergic skin reaction.

Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives.

Environmental hazards : Very toxic to aquatic organisms. Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

Label elements (1272/2008/EC):

Hazard pictograms :



Signal word : Warning

H- and P-phrases : H317 May cause an allergic skin reaction.  
P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P280 gloves Wear protective gloves.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P302+P352 IF ON SKIN: Wash with plenty of water/soap.  
P362+P364 Take off contaminated clothing and wash it before reuse.



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Dispose of contents/container to an official chemical waste depot.

Additional labelling (for all packaging sizes)

: Contains: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one ; 3-(p-Methoxyphenyl)-2-methylpropionaldehyde ; d-Limonene ; 7-Hydroxycitronellal ; Citronellol ; 3-Methylcyclopentadecenone .

## 2.3. Other hazards

Other information : The product does not need to carry all label elements required by Article 17 of Regulation (EC) No 1272/2008 on the basis of Annex I, point 1.5.2.1. Exemption for packages where the contents do not exceed 125 ml. Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### 3.2. Mixtures

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC number	Remark	REACH nr.
Benzyl benzoate	25 - < 50	120-51-4	204-402-9		01-2119976371-33
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	10 - < 20	54464-57-2	259-174-3		01-2119489989-04
2-Ethyl-3-hydroxy-4-pyrone	1 - < 5	4940-11-8	225-582-5		
Reaction mass of: (E)-oxacyclohexadec-12-en-2-one; (E)-oxacyclohexadec-13-en-2-one	2,5 - < 5	34902-57-3	422-320-3		01-0000016883-62
Tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans)	1 - < 5	63500-71-0	405-040-6		01-2119455547-30
3,7-Dimethylnona-1,6-dien-3-ol	1 - < 5	10339-55-6	233-732-6		01-2119969272-32
3-(p-Methoxyphenyl)-2-methylpropionaldehyde	1 - < 5	5462-06-6	226-749-5		
d-Limonene	1 - < 2,5	5989-27-5	227-813-5		01-2119529223-47
7-Hydroxycitronellal	1 - < 5	107-75-5	203-518-7		01-2119973482-31
Citronellol	0,1 - < 1	106-22-9	203-375-0		01-2119453995-23
(Z)-3-hexenyl salicylate	0,25 - < 1	65405-77-8	265-745-8		01-2119987320-37
3-Methylcyclopentadecenone	0,25 - < 1	82356-51-2	429-900-5		01-0000017618-62
Oxydipropanol	0,1 - < 1	25265-71-8	246-770-3	MAC	

Substance name	Hazard Class	H-phrases	Pictograms	
Benzyl benzoate	Acute Tox. 4; Aquatic Acute 1; Aquatic chronic 2	H302; H400; H411	GHS07; GHS09	M (acute) = 1
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Skin Irrit. 2; Skin Sens 1B; Aquatic Chronic 1	H315; H317; H410	GHS07; GHS09	M (chronic) = 1
2-Ethyl-3-hydroxy-4-pyrone	Acute Tox. 4	H302	GHS07	
Reaction mass of: (E)-oxacyclohexadec-12-en-2-one; (E)-oxacyclohexadec-13-en-2-one	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (acute) = 1 M (chronic) = 1
Tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans)	Eye Irrit. 2	H319	GHS07	
3,7-Dimethylnona-1,6-dien-3-ol	Skin Irrit. 2; Eye Irrit. 2	H315; H319	GHS07	
3-(p-Methoxyphenyl)-2-methylpropionaldehyde	Skin Sens. 1B	H317	GHS07	



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d-Limonene	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1	H226; H304; H315; H317; H400; H410	GHS02; GHS07; GHS08; GHS09	M (acute) = 1
7-Hydroxycitronellal	Skin Sens. 1B; Eye Irrit. 2	H317; H319	GHS07	
Citronellol	Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B	H319; H317; H315	GHS07	
(Z)-3-hexenyl salicylate	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (acute) = 1 M (chronic) = 1
3-Methylcyclopentadecenone	Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1	H317; H400; H410	GHS07; GHS09	M (acute) = 1 M (chronic) = 1
Oxydipropanol	-----	-----	-----	

Occupational exposure limit(s), if relevant, are listed in section 8.

Reference is made to chapter 16 for full text of each relevant H phrase.

## SECTION 4 FIRST-AID MEASURES

### 4.1. Description of first aid measures

#### First aid measures

- Inhalation : Not applicable under normal conditions of use. Consult a doctor if victim feels unwell.
- Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor if irritation occurs.
- Eye contact : Wash out with (lukewarm) water for at least 15 minutes. Remove contact lenses. Consult a doctor if irritation persists.
- Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. Never give anything by mouth to an unconscious person. Consult a doctor if victim feels unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Effects and symptoms

- Inhalation : No specific effects and/or symptoms are known.
- Skin contact : Irritant. May cause redness and irritation, sensitisation. May produce an allergic reaction.
- Eye contact : May cause stinging of eyes and redness.
- Ingestion : May cause a feeling of sickness, vomiting and diarrhoea.

### 4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians : None known.

## SECTION 5 FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

#### Extinguishing media

- Suitable : Carbondioxide (CO2). Foam. Dry chemical. Water fog.
- Not suitable : Water jet.

### 5.2. Special hazards arising from the substance or mixture

- Special exposure hazards : None known.
- Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.



### 5.3. Advice for firefighters

Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material. Vapours are heavier than air. Build up (of gasses) in low areas involves risk of suffocation.

### 6.2. Environmental precautions

Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. In case of large spills: contain with dike. Waste product should not be allowed to contaminate soil or water.  
Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spilled material in containers. Dispose at an authorised waste collection point. Wash away remainder with plenty of water and soap.

### 6.4. Reference to other sections

Reference to other sections : See also section 8.

## SECTION 7 HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Avoid contact with skin and eyes.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep frost-free, in a cool, dry and well-ventilated place (< 35 °C). Keep away from oxidizing agents.  
Recommended packaging : Keep only in the original container.  
Non recommended packaging : None known.

### 7.3. Specific end use(s)

Use : Use only as directed.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Occupational exposure limits : Occupational exposure limits have not been established for this product. Derived no-effect levels (DNEL) have not been established for this product. Predicted no-effect concentrations (PNEC) have not been established for this product.

Workplace exposure limits (mg/m<sup>3</sup>):

Chemical name	Country	TWA 8 hour (mg/m <sup>3</sup> )	STEL 15 min (mg/m <sup>3</sup> )	Comments



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d-Limonene		110	-	
Oxydipropanol		67	-	

Derived no-effect level (DNEL) for workers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Benzyl benzoate	Dermal				2,6 mg/kg bw/day
	Inhalation		102 mg/m3		5,1 mg/m3
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Dermal	0,1011 mg/kg bw			1,73 mg/kg bw/day
	Inhalation				1,76 mg/m3
3,7-Dimethylnona-1,6-dien-3-ol	Dermal	16 mg/kg bw	5,5 mg/kg bw	16 mg/kg bw/day	2,7 mg/kg bw/day
	Inhalation		18 mg/m3		3 mg/m3
d-Limonene	Inhalation				33,3 mg/m3
7-Hydroxycitronellal	Dermal				1,9 mg/kg bw/day
	Inhalation				18 mg/m3
Citronellol	Dermal				45,8 mg/kg bw/day
	Inhalation				161,6 mg/m3
(Z)-3-hexenyl salicylate	Dermal				0,9 mg/kg bw/day
	Inhalation				1,59 mg/m3
Oxydipropanol	Dermal				84 mg/kg bw/day
	Inhalation				238 mg/m3

Derived no-effect level (DNEL) for consumers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Benzyl benzoate	Dermal				1,3 mg/kg bw/day
	Inhalation		25 mg/m3		1,25 mg/m3
	Oral		78 mg/kg bw		0,4 mg/kg bw/day
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Dermal	0,0506 mg/kg bw			0,86 mg/kg bw/day
	Inhalation				0,43 mg/m3
	Oral				0,25 mg/kg bw/day
3,7-Dimethylnona-1,6-dien-3-ol	Dermal	16 mg/kg bw	2,7 mg/kg bw	16 mg/kg bw/day	1,4 mg/kg bw/day
	Inhalation		4,4 mg/m3		0,74 mg/m3
	Oral		1,3 mg/kg bw		0,2 mg/kg bw/day
d-Limonene	Inhalation				8,33 mg/m3
	Oral				4,76 mg/kg bw/day
7-Hydroxycitronellal	Dermal				1,1 mg/kg bw/day
	Inhalation				5,4 mg/m3
	Oral				0,6 mg/kg bw/day
Citronellol	Dermal				27,5 mg/kg bw/day
	Inhalation				47,8 mg/m3
	Oral				13,75 mg/kg bw/day
(Z)-3-hexenyl salicylate	Dermal				0,45 mg/kg bw/day
	Inhalation				0,39 mg/m3
	Oral				0,23 mg/kg bw/day
Oxydipropanol	Dermal				51 mg/kg bw/day
	Inhalation				70 mg/m3
	Oral				24 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Benzyl benzoate	Water	0,017 mg/l	0,002 mg/l	

3,7-Dimethylnona-1,6-dien-3-ol	Sediment	10,66 mg/kg	1,07 mg/kg	
	STP			100 mg/l
	Soil			2,12 mg/kg
	Water	0,023 mg/l	0,0023 mg/l	
	Sediment	0,223 mg/kg	0,0223 mg/kg	
d-Limonene	Intermittent water			0,23 mg/l
	STP			10 mg/l
	Soil			0,031 mg/kg
	Oral			8,53 mg/kg food
	Water	0,0054 mg/l	0,0005 mg/l	
Citronellol	Sediment	1,32 mg/kg	0,13 mg/kg	
	STP			1,8 mg/l
	Soil			0,262 mg/kg
	Oral			3,33 mg/kg food
	Water	0,0024 mg/l	0,00024 mg/l	
(Z)-3-hexenyl salicylate	Sediment	0,0256 mg/kg	0,00256 mg/kg	
	Intermittent water			0,024 mg/l
	STP			580 mg/l
	Soil			0,00371 mg/kg
	Water	0,00061 mg/l	0,000061 mg/l	
Oxydipropanol	Sediment	0,11 mg/kg	0,011 mg/kg	
	Intermittent water			0,0061 mg/l
	STP			10 mg/l
	Soil			0,0217 mg/kg
	Oral			40 mg/kg food
	Water	0,1 mg/l	0,01 mg/l	
	Sediment	0,238 mg/kg	0,0238 mg/kg	
	Intermittent water			1 mg/l
	STP			1000 mg/l
	Soil			0,0253 mg/kg
	Oral			313 mg/kg food

## 8.2. Exposure controls

Engineering measures : Comply with standard precautionary measures for working with chemicals.

Hygienic measures : When using do not eat, drink or smoke.

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.



- Body protection : Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345. Suitable material: nitril. Indication of permeation breakthrough time: 6 hours.
- Respiratory protection : Take care of sufficient ventilation. Wear suitable respiratory protection in case of large scale exposure. Suitable: gas filter type A (brown), class I or higher on e.g. a facemask in accordance with EN 140.
- Hand protection : Wear appropriate safety gloves in accordance with EN 374. Suitable material: nitril. 0,13 mm. Indication of permeation breakthrough time: 6 hours.
- Eye protection : Wear appropriate safety glasses when there is danger of possible eye contact.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES



### 9.1. Information on basic physical and chemical properties

Appearance	: Liquid.	Impregnated material.
Colour	: Light yellow.	
Odour	: Perfumed.	
Odour threshold	: Not known.	
pH	: Not applicable.	Waterfree product.
Solubility in water	: Not soluble.	
Partition coefficient (n-octanol/water)	: Not known.	
Flash point	: > 100 °C	
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: > 240 °C	
Boiling point/boiling range	: > 100 °C	
Melting point/melting range	: < 0 °C	
Explosive properties	: None known.	Does not contain explosives.
Explosion limits (% in air)	: Not known.	Lower explosion limit in air (%): 0,7 ( d-Limonene )
	:	Upper explosion limit in air (%): 6,5
Oxidising properties	: Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: Not known.	
Viscosity (40°C)	: Not relevant.	The product contains < 10% substances having an aspiration hazard.
Vapour pressure (20°C)	: Not known.	
Vapour density (20°C)	: > 1	(air = 1)
Relative density (20°C)	: 0,9 g/ml	
Evaporation rate	: Not known.	(n-butyl acetate = 1)

## SECTION 10 STABILITY AND REACTIVITY

### 10.1. Reactivity

Reactivity : See sub-sections below.

### 10.2. Chemical stability

Stability : Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reactivity : No other hazardous reactions known.

### 10.4. Conditions to avoid

Conditions to avoid : See section 7.

### 10.5. Incompatible materials

Materials to avoid : Keep away from oxidizing agents.

### 10.6. Hazardous decomposition products

Hazardous decomposition products : Not known.

## SECTION 11 TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects



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No toxicological research has been carried out on this product.

## Inhalation

- Acute toxicity : Calculated LC50: > 10 mg/l. Ingredients of unknown toxicity: 37 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Not classified - based on available data, the classification criteria are not met.
- Sensitisation : Does not contain substances classified as respiratory sensitiser. Not classified - based on available data, the classification criteria are not met.
- Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

## Skin contact

- Acute toxicity : Calculated LD50: > 4711 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Irritant. May cause redness. Prolonged contact may dry out and defat the skin.
- Sensitisation : May cause sensitisation by skin contact. May produce an allergic reaction.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

## Eye contact

- Corrosion/irritation : Slight irritation possible. Not classified - based on available data, the classification criteria are not met.

## Ingestion

- Acute toxicity : Calculated LD50: > 2700 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Aspiration : Contains a substance/substances with an aspiration hazard. Not classified - based on available data, the classification criteria are not met. Impregnated material with minimal content: Ingestion is unlikely to occur.
- Corrosion/irritation : May cause a feeling of sickness, vomiting and diarrhoea.
- Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.
- Reprotoxicity : Development: Not expected to be reprotoxic. Development: Not classified - Based on available data, the classification criteria are not met. Fertility: not expected to be reprotoxic. Fertility: Not classified - based on available data, the classification criteria are not met.

## Toxicological information:

Chemical name	Property		Method	Test animal
Benzyl benzoate	Skin irritation	Slightly irritant	-----	Rabbit
	Skin sensitisation	> 12500 ug/cm2	OECD 429	Mouse
	LD50 (dermal)	4000 mg/kg bw	-----	Rabbit
	NOAEL (development) - estimate	100 mg/kg.d		Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	LC50 (inhalation) - estimate	> 5570 mg/m3	Read across	
	LD50 (oral)	1700 mg/kg bw	-----	Rat
	NOAEL (oral) - estimate	460 mg/kg bw/d		Rat
	Genotoxicity - estimate	Not genotoxic	Read across	Chinese Hamster
	Skin irritation	Non-irritant	-----	Rabbit
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Skin sensitisation	6825 ug/cm2	OECD 429	Mouse
	LD50 (oral)	> 5000 mg/kg bw	-----	Rat
	LD50 (dermal)	> 5000 mg/kg bw	-----	Rat



2-Ethyl-3-hydroxy-4-pyrone	Mutagenicity	Not mutagenic	OECD 471	----
	NOAEL (development, oral)	480 mg/kg bw/d	OECD 414	Rat
	LD50 (oral)	1150 mg/kg bw	----	Rat
	LD50 (dermal)	> 5000 mg/kg bw	----	Rabbit
	NOAEL (oral)	> 200 mg/kg bw/d		Rat
	NOAEL (fertility, oral)	> 200 mg/kg bw/d	----	----
	Genotoxicity - in vitro	Not genotoxic		
3,7-Dimethylnona-1,6-dien-3-ol	NOEL (carcinogenicity, oral)	> 200 mg/kg bw/d	----	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	LD50 (oral)	5000 mg/kg bw	----	Rat
	LD50 (dermal)	> 5000 mg/kg bw	----	Rabbit
	NOAEL (oral) - estimate	117 mg/kg bw/d	Read across	Rat
	NOAEL (dermal) - estimate	250 mg/kg bw/d	Read across	Rat
	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
3-(p-Methoxyphenyl)-2-methylpropionaldehyde	Genotoxicity - estimate	Not genotoxic	Read across	
	Skin irritation	Irritant	----	Rabbit
	Eye irritation	Irritant	----	Rabbit
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	LD50 (oral)	> 5000 mg/kg bw		Rat
	Skin sensitisation	Sensitizing.	OECD 406	Guinea pig
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
d-Limonene	Genotoxicity - in vivo	> 2000 mg/kg bw/d		Rat
	NOEL (carcinogenicity, oral)	> 300 mg/kg bw/d	OECD 451	Rat
	Eye irritation	Non-irritant	OECD 405	Rabbit
	Mutagenicity	Negative	OECD 471	
	Skin sensitisation	10075 ug/cm2	OECD 429	Mouse
	NOAEL (development, oral)	600 mg/kg bw/d		Rat
	Skin irritation	Irritant	----	----
7-Hydroxycitronellal	LD50 (dermal)	> 2000 mg/kg bw	----	Rabbit
	LD50 (oral)	4400 mg/kg bw	----	Rat
	Genotoxicity - in vitro	Not genotoxic		
	NOAEL (oral)	150 mg/kg bw/d		Rat
	Skin irritation	Irritant		
	LD50 (dermal)	> 2000 mg/kg bw	----	Rabbit
	Skin sensitisation	5612 ug/cm2	OECD 429	Mouse
Citronellol	Skin irritation	850 ug/cm2	OECD 404	
	Eye irritation	Irritant		
	Skin irritation	Non-irritant		
	LD50 (oral)	> 5000 mg/kg bw	----	Rat
	NOEL (oral)	250 mg/kg bw/d		
	Genotoxicity - in vivo	Not genotoxic		Mouse
	NOEL (carcinogenicity) - estimate	Not carcinogenic		
Citronellol	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic		
	Skin sensitisation	10875 ug/cm2	OECD 429	Mouse
	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
	NOAEL (oral)	> 50 mg/kg bw/d		Rat
	Skin irritation	Moderately irritant		Rabbit



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3-Methylcyclopentadecenone	LD50 (oral)	3450 mg/kg bw	-----	Rat
	LD50 (dermal)	2650 mg/kg bw		Rabbit
	NOAEL (fertility, dermal)	300 mg/kg bw/d	OECD 421	Rat
	NOAEL (developmental toxicity, dermal)	> 300 mg/kg bw/d	OECD 421	Rat
	Skin irritation	Moderately irritant	Patch test	Human
	Eye irritation	Moderately irritant		Rabbit
	Skin sensitisation	Not sensitizing	OECD 406	Guinea pig
	Skin irritation	Non-irritant	OECD 404	Rabbit
	LD50 (dermal)	> 2000 mg/kg bw	-----	Rabbit
	LD50 (oral)	> 2000 mg/kg bw	-----	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 473	-----
	NOAEL (fertility, oral)	> 1000 mg/kg bw/d	OECD 415	Rat
	Eye irritation	Non-irritant	OECD 405	Rabbit

## SECTION 12 ECOLOGICAL INFORMATION

### 12.1. Toxicity

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Very toxic to aquatic organisms. Calculated LC50 (fish): 2 mg/l. Calculated EC50 (waterflea):  
Contains 7 % of components with unknown hazards to the aquatic environment.

### 12.2. Persistence and degradability

Persistence – degradability : May cause long-term adverse effects in the aquatic environment.

### 12.3. Bioaccumulative potential

Bioaccumulative potential : No specific information known.

### 12.4. Mobility in soil

Mobility : Adsorbs to soil and has low mobility.

### 12.5. Results of PBT and vPvB ass

PBT/vPvB assessment : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

### 12.6. Other adverse effects

Other information : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
Benzyl benzoate	IC50 (algae)	0,475 mg/l	OECD 201	Pseudokirchnerella subcapitata
	LC0 (fish)	1,9 mg/l	OECD 203	Brachydanio rerio
	LC100 (fish)	2,84 mg/l	OECD 203	Brachydanio rerio
	Ultimate aerobic biodegradation (%)	94 %	OECD 301 F	
	LC50 (fish)	2,32 mg/l	OECD 203	Brachydanio rerio
	EC50 (waterflea)	3,09 mg/l	OECD 202	Daphnia magna
	NOEC (waterflea) - chronic	0,258 mg/l.d	OECD 211	Daphnia magna
	Log P(ow)	3,97		
	BCF	24		



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1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	EC50 (waterflea)	1,38 mg/l	OECD 202	----
	LC50 (algae)	> 2,6 mg/l	OECD 201	----
	LC50 (fish)	1,3 mg/l	OECD 203	----
	Log P(ow)	5,23		
	BCF	600		
Reaction mass of: (E)-oxacyclohexadec-12-en-2-one; (E)-oxacyclohexadec-13-en-2-one	NOEC (fish)	0,52 mg/l	OECD 203	Oncorhynchus mykiss
d-Limonene	LC50 (fish)	2,0 mg/l	OECD 203	Oncorhynchus mykiss
	EC50 (waterflea)	0,48 mg/l	OECD 202	Daphnia magna
	Log P(ow)	5,02		
	LC50 (fish)	0,720 mg/l	OECD 203	Pimephales promelas
	EC50 (waterflea)	0,36 mg/l	OECD 202	Daphnia magna
	Ultimate aerobic biodegradation (%)	> 92 %		
	NOEC (waterflea) - chronic	0,15 mg/l.d		Daphnia magna
(Z)-3-hexenyl salicylate	Log P(ow)	4,38		
	Ultimate aerobic biodegradation (%)	89 %	OECD 301 F	
	LC50 (fish) - estimate	1,13 mg/l		Brachydanio rerio
	EC50 (waterflea)	3,7 mg/l	OECD 202	Daphnia magna
3-Methylcyclopentadecenone	LC50 (algae)	0,61 mg/l	OECD 201	Desmodesmus subspicatus
	Log P(ow)	4,57		
	LC50 (fish)	0,22 mg/l		
	Ultimate aerobic biodegradation (%)	43 %	OECD 301 D	
	EC50 (waterflea)	0,39 mg/l		Daphnia magna
	LC50 (algae)	> 30 mg/l		
	Log P(ow)	5,91		

## SECTION 13 DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

- Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues, impregnated wipes and non-empty pack as hazardous waste.
- Additional warning : None.
- European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.
- Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

## SECTION 14 TRANSPORT INFORMATION

### 14.1. UN number

UN nr. : UN 3082

### 14.2. UN proper shipping name

Transport name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Benzyl benzoate ; Reaction mass of: (E)-oxacyclohexadec-12-en-2-one; (E)-oxacyclohexadec-13-en-2-one )

Transport name (IMDG, IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Benzyl benzoate ; (E)-oxacyclohexadec-12-en-2-one, (E)-oxacyclohexadec-13-en-2-one )

#### 14.3/14.4/14.5. Transport hazard class(es)/Packing group/Environmental hazards

ADR/RID/ADN (road/railway/inland waterways)

Class : 9  
Classification code : M6  
Packaging group : III  
Danger label : 9



Other information : Not intended for carriage by tank-vessels on inland waterways.

IMDG (sea)

Class : 9  
Packaging group : III  
EmS (fire / spill) : F - A / S - F  
Marine pollutant : Yes

IATA (air)

Class : 9

#### 14.6. Special precautions for user

Other information : Country specific variations may apply. It is possible that a "Limited Quantity" exemption applies to the transport of this product.

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Marpol : Not intended to be carried in bulk according to International Maritime Organisation (IMO) instruments. Packaged liquids are not considered bulk.

### SECTION 15 REGULATORY INFORMATION

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Community regulations : Regulation (EU) No 2015/830 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations.

#### 15.2. Chemical safety assessment

Chemical safety assessment : Not applicable.

### SECTION 16 OTHER INFORMATION

#### 16.1. Other information

The information in this safety data sheet is compiled in compliance with Regulation (EU) No 2015/830 dated 28 May 2015 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.



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Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (\*).

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

ADR	: European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	: Acute Toxicity Estimate
CLP	: Classification, Labeling & Packaging
CMR	: Carcinogenic, Mutagenic or toxic for Reproduction
EEC	: European Economic Community
IATA	: International Air Transport Association
IBC code	: International Bulk Chemical Code
IMDG	: International Maritime Dangerous Goods Code
LD50/LC50	: Lethal Dose/Concentration for 50% of a population
MAC	: Maximum Allowable Concentration
MARPOL	: International Convention for the Prevention of Pollution From Ships
NO(A)EL	: No Observed (Adverse) Effect Level
OECD	: Organisation for Economic Co-operation and Development
PBT	: Persistent, Bioaccumulative and Toxic
PC	: Chemical product category
PT	: Product type
REACH	: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	: Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	: Sewage Treatment Plant
SU	: Sector of Use
TWA/STEL	: Time-Weighted Average/Short Term Exposure Limit
UN	: United Nations
VOC	: Volatile Organic Compounds
vPvB	: Very Persistent and Very Bioaccumulative

Full text of hazard classes mentioned in section 3:

Flam. Liq. 3	: Flammable liquid, category 3.
Acute Tox. 4	: Acute toxicity, category 4.
Skin Irrit. 2	: Skin irritation, category 2.
Eye Irrit. 2	: Eye irritation, category 2.
Skin Sens. 1/1A/1B	: Skin sensitization, category 1/1A/1B.
Asp. Tox. 1	: Aspiration hazard, category 1.
Aquatic Chronic 1	: Hazardous to the aquatic environment — Chronic category 1.
Aquatic Chronic 2	: Hazardous to the aquatic environment — Chronic category 2.
Aquatic Acute 1	: Hazardous to the aquatic environment — Acute category 1.

Full text of H-phrases mentioned in section 3:

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Number format : ", " used as decimal separator.

End of safety data sheet.